

# Global Gold Mines & Deposits 2012 Ranking (over 1mm oz)

### Introduction

Following on the success of last year's report we have decided to make the ranking of the world's gold deposits an annual endeavor highlighting trends in future mine supply, depletion, discoveries, and in-situ grades.

As far as we know, there has not been a similar effort to compile a comprehensive database of the world's gold mines and deposits. Nevertheless, we rose to the laborious challenge knowing the industry reliance on risk capital via public markets presented an opportunity to data mine regulatory !lings which would result in a high quality database.

With this research our goal was to provide quantitative answers to some of the questions we kept asking ourselves as investors in the space. Questions such as:

How many ounces of in-situ gold exist?

How many gold mines exist in Canada?

How rare is a 1.0 million ounce undeveloped deposit?

The report answers these questions and more while providing insight into the scarcity of mines & deposits. Additionally, having a granular view of the supply mix is useful as it allows market participants to ascertain the long-term supply and demand fundamentals of the metal.

We have made some important changes this year to the methodology of the database adding grade, tonnage, and government owned mines/deposits. We also partnered with Visual Capitalists, an investor website that provides rich visual content, to assist in visualizing the data we compiled. The report is free for usage and distribution with acknowledgment of the author.

Sincerely,

Roy Sebag July 2012



How rare are 1 million+ ounce gold deposits?



### Changes to Methodolgy

This year we implemented some important changes to our methodology leading to a higher quality database that is more comprehensive:

Introduction of Grade and Tonnage in grams per tonne providing a more qualitative analysis of each respective deposit.

The inclusion of Government owned deposits such as Murantao and Sukhoi Log.

The inclusion of South African mines and deposits.

The inclusion of Australian listed companies as well as Polyus, Anglogold Ashanti and Newcrest, companies that are harder to compile due to the opacity of their mineral resource disclosure.

While we still have serious reservations relating to what portion of delineated resources can actually be extracted in the South African deposits we felt that they warranted inclusion in order to provide readers with an all-encompassing database. That same logic led us to include government owned mines even though we are somewhat skeptical of their reported grades and often relied on an outdated technical report.

### Methodolgy

We started with a list of 1,892 publicly traded companies that are in some way involved in gold production, exploration, or development of over 7,000 geologic anomalies. Our goal was to !nd an undeveloped gold deposit or producing mine that hosted over 1 million troy ounces of in-situ resources under a globally respected mineral de!nition standard such as CIM NI 43-101, JORC, or SAMREC.

In an effort to provide the most comprehensive database and due to the fact that every proven or probable ounce starts off as inferred, we aggregate all resource categories into one !gure (refer to last year's report for a discussion relating to aggregating all resource categories). Where there are reserves and resources we will most likely use the inclusive resource !gure. When a cutoff grade is recommended by a geological consultancy we will rely on that cutoff grade unless the report was outdated and we felt a lower cutoff grade was warranted. It is important to stress that resources are not necessarily indicative of future mine supply given that metallurgical recovery rates and economic pit outlines are not applied. In the "Potential Mine Supply Exercise" section we discuss this further.

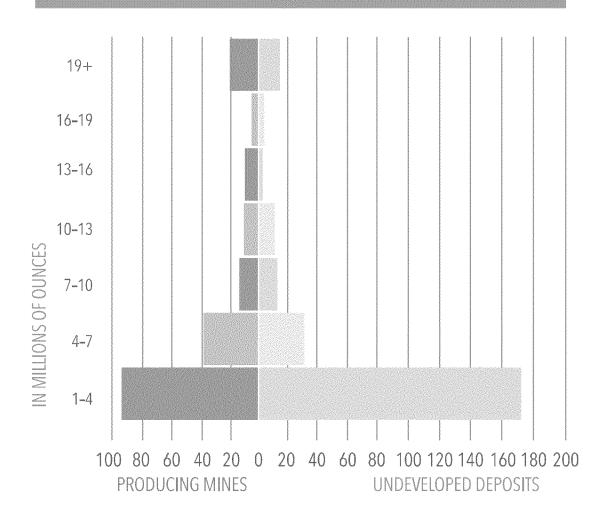
When it came to copper/gold porphyries it was dif!cult to draw the line as to what was a gold deposit vs. a copper deposit. In this year's report we included deposits such as Reko Diq and Galore Creek because we felt their global contained ounces were too large to disregard even though they are primarily copper deposits.

### 2012 Result Summary

From an initial list of 1,896 companies we were able to identify 212 entities (Public, Private and Government Sponsored Corporations) that own 439 gold deposits hosting over 1,000,000 ounces in all categories representing a total of 3,015,542,164 ounces of gold. The complete list can be found at the end of this report. [Skip to full list]

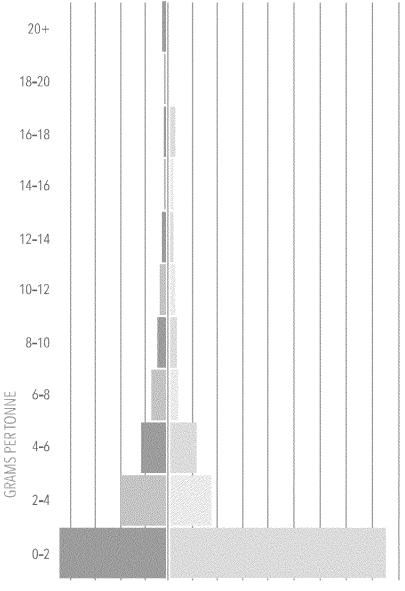
THROUGH OUR RESEARCH WE HAVE INDENTIFIED 439 DEPOSITS THROUGHOUT THE WORLD THAT CONTAIN OVER 1 MILLION OUNCES OF GOLD.

### **DISTRIBUTION BY DEPOSIT SIZE:**



THROUGH OUR RESEARCH WE HAVE INDENTIFIED 439 DEPOSITS THROUGHOUT THE WORLD THAT CONTAIN OVER 1 MILLION OUNCES OF GOLD.

### **DISTRIBUTION BY GRADE:**



80 60 40 20 0 20 40 60 80 100 120 140 160 180 PRODUCING MINES UNDEVELOPED DEPOSITS

189

250

AVERAGE GRADE (UNDEVELOPED DEPOSITS)

0.66
37% DECREASE FROM PRODUCING

AVERAGE GRADE (PRODUCING MINES)

1.06

**AVERAGE GRADE (TOTAL)** 

0.82

NUMBERS IN GRAMS PER TONNE

## Top 50 Producing Mines by Global In-Situ Resources:

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership
1	Grasberg	4,909	0.56	88,106,000	Indonesia	Freeport Mcmoran
2	Lihir	830	2.10	56,000,000	Papua New Guiniea	Newcrest
3	Muruntau	625	2.49	50,000,000	Uzbekistan	Government of Uzbekistan
4	Mponeng	122	12.60	49,550,000	Africa, South Africa	Anglogold Ashanti
5	Olimpiada	459	3.22	47,500,000	Russia	Polyus Gold
6	Oyu Tolgoi	3,754	0.38	46,085,000	Mongolia	lvanhoe
7	Pueblo Viejo	490	2.38	37,451,666	Dominican Republic	Barrick / Goldcorp
8	Cadia East	2,300	0.45	33,000,000	Australia	Newcrest
9	Obuasi	154	5.98	29,520,000	Africa, Ghana	Anglogold Ashanti
10	South Deep	149	6.16	29,500,000	Africa, South Africa	Gold! elds
11	Boddington	1,474	0.58	27,576,000	Australia	Newmont
12	Hycroft	2,367	0.34	26,181,000	USA, Nevada	Allied Nevada Gold
13	Penasquito	2,278	0.35	25,276,000	Mexico	Goldcorp
14	Burnstone	139	5.08	22,692,701	Africa, South Africa	Great Basin Gold
15	Paracatu	1,788	0.39	22,692,000	Brazil	Kinross
16	Turqouise Ridge	121	5.57	21,650,000	USA, Nevada	Barrick / Newmont
17	Carlin	376	1.75	21,225,000	USA, Nevada	Newmont
18	Tasiast	610	1.04	20,418,000	Africa, Mauritania	Kinross
19	Moab Khotsong	30	21.37	20,310,000	Africa, South Africa	Anglogold Ashanti
20	Cortez Operation	348	1.78	19,860,000	USA, Nevada	Barrick
21	Ahafo	337	1.76	19,105,000	Africa, Ghana	Newmont
22	Driefontein	75	7.55	18,200,000	Africa, South Africa	Gold! elds
23	Kisladag	960	0.55	17,016,000	Turkey	El Dorado
24	Bulyanhulu	54	9.67	16,859,269	Africa, Tanzania	Barrick
25	Sukari Mine	454	1.06	15,430,000	Egypt	Centamin Egypt
26	Maricunga	851	0.56	15,366,000	Chile	Kinross
27	Goldstrike	112	4.23	15,188,000	USA, Nevada	Barrick
28	Kumtor	140	3.15	14,194,000	Krygz Republic	Centerra
29	Cripple Creek	579	0.76	14,100,000	USA, Colorado	Anglogold Ashanti
30	Los Filos	520	0.81	13,564,000	Mexico	Goldcorp
31	Canadian Malartic	423	0.98	13,380,000	Canada, Quebec	Osisko
32	Yanacocha	470	0.88	13,288,600	Peru	Newmont / Buenaventura
33	Blagodatnoye	172	2.36	13,075,000	Russia	Polyus Gold
34	Porcupine	303	1.22	11,930,000	Canada, Ontario	Goldcorp
35	Porgera	120	3.07	11,826,262	Papua New Guiniea	Barrick
36	Veladero	544	0.66	11,595,000	Argentina	Barrick
37	Phoenix	722	0.49	11,427,420	USA, Nevada	Newmont
38	Geita	102	3.44	11,270,000	Africa, Tanzania	Anglogold Ashanti
39	Choco 10	189	1.83	11,127,000	Venezuela	Rusoro
40	Sadiola	217	1.58	11,025,000	Africa, Mali	Anglogold Ashanti
41	Kloof	53	6.16	10,500,000	Africa, South Africa	Gold! elds
42	Super Pit / Kalgoorlie	240	1.34	10,374,000	Australia	Barrick / Newmont
43	Batu Hijau	1,269	0.25	10,304,000	Indonesia	Newmont / Sumitomo
44	Tarkwa	244	1.26	9,900,000	Africa, Ghana	Gold! elds
45	Malomir	376	0.81	9,810,000	Russia	Petropavlovsk
46	Verninskoye	127	2.33	9,537,000	Russia	Polyus Gold
47	Kopanang	24	11.79	9,130,000	Africa, South Africa	Anglogold Ashanti
48	Loulo	62	4.41	8,800,000	Africa, Mali	Randgold
	Rosebel	276	0.99	8,772,000	Suriname	IAMGold
49	OVSEME	210	0.00	9,112,000	Julilaille	MINIOUIG

## Top 50 Undeveloped Deposits by Global In-Situ Resources

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership
4	Pebble Deposit	10,177	0.33	107,300,000	USA, Alaska	Northern Dynasty / Anglo American
2	KSM Deposit	3,906	0.51	63,979,000	Canada, BC	Seabridge Gold
3	Natalka	1,078	1.70	58,950,000	Russia	Polyus Gold
4	Donlin Creek	634	2.21	45,000,000	USA, Alaska	Barrick / NovaGold
5	Reko Diq	5,864	0.22	42,400,000	Pakistan	Barrick / Pakistan
6	Snow! eld	2,203	0.49	34,950,000	Canada, BC	Pretium Resources
7	Sukhoi Log	384	2.67	33,000,000	Russia	Government of Russia
8	Cerro Cassale	1,995	0.51	32,587,666	Chile	Barrick / Kinross
9	Las Cristinas	1,116	0.86	30,804,000	Venezuela	Government of Venezuela
10	Detour Lake Mine	887	1.02	29,119,000	Canada, Ontario	Detour Gold
11	Pascua-Lama	662	1.21	25,810,000	Chile	Barrick
12	Caspiche	1,646	0.47	24,869,000	Chile	Exeter Gold
13	La Colosa	830	0.91	24,200,000	Colombia	Anglogold Ashanti
14	Livengood	1,190	0.54	20,631,000	USA, Alaska	Int'l Tower Hill Mines
15	Metates	1,246	0.49	19,828,000	Mexico	Chesapeake
16	Golpu	870	0.69	19,300,000	Papua New Guinea	Newcrest
17	Rosia Montana	556	1.03	18,500,000	Romania	Gabriel Resources
18	Conga	924	0.59	17,473,300	Peru	Newmont/ Buenaventura
19	BruceJack	30	17.45	17,056,000	Canada, BC	Pretium Resources
20	Marmato	489	0.91	14,377,000	Colombia	Gran Colombia
21	El Morro	804	0.53	13,788,000	Chile	Goldcorp / NewGold
22	King King	1,151	0.32	11,943,000	Philippines	St. Augustine Gold
23	Courageous Lake	156	2.27	11,403,000	Canada, BC	Seabridge Gold
24	Titiribi	635	0,54	11,079,000	Colombia	Sunward
25	Fruta del Norte	52	6.64	11,030,000	Equador	Kinross
26	Galore Creek	1,160	0.29	10,700,000	Canada, BC	Novagold/Teck
27	Hammond Reef	530	0.62	10,520,000	Canada, Ontario	Osisko
28	Volcan	456	0.71	10,383,000	Chile	Andina Minerals
29	Kyzl	40	8.05	10,354,000	Kazakhzstan	lvanhoe
30	Toroparu	419	0.74	10,006,000	Guyana	Sandspring Resources
31	Gaby	499	0.62	10,000,000	Equador	International Minerals/Chinese Firm
32	Agua Rica	1,752	0.18	9,929,000	Argentina	Yamana/Glencore/Goldcorp
33	Lobo Marte	311	0.98	9,757,000	Chile	Kinross
34	Orisyvo	278	1.05	9,400,000	Mexico	Fresnillo
35	Mt. Todd	341	0.83	9,036,000	Australia	Vista Gold
36	Tengrela	271	1.04	9,024,000	Africa, Ivory Coast	Perseus Mining
37	Blackwater	334	0.80	8,616,000	Canada, BC	Newgold
38	Casino Copper	1,058	0.24	8,300,000	Canada, BC	Western Copper
39	Kibali	82	3.14	8,300,000	Africa, DRC	Anglogold Ashanti
40	Prosperity Mine	831	0.29	7,700,000	Canada, BC	Taseko Mines
41	Maoling	317	0.76	7,700,000	China	Mundoro Capital
42	Akyem	146	1.64	7,684,000	Africa, Ghana	Newmont
43	Eleonore	26	9.19	7,680,000	Canada, Quebec	GoldCorp
44	Mount Milligan	727	0.32	7,468,000	Canada, BC	Thompson Creek Metals
45	Red Hill - Gold Rush	48	4.59	7,021,000	USA, Nevada	Barrick
46	Meliadine	38	5.76	6,977,000	Canada, Nunavut	Agnico Eagle
47	Rovina Valley	370	0.59	6,960,000	Romania	Carpathian Gold
48	Cote Lake	239	0.90	6,891,000	Canada, Ontario	IAMGold
49	Rainy River	194	1.08	6,736,000	Canada, Ontario	Rainy River Resources
50	La Bodega	139	1.50	6,700,000	Colombia	AUX

## Top 50 Producing Mines by Grade:

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership
4	Hollister	2	32.81	2,489,500	USA, Nevada	Great Basin Gold
2	Tautona	7	23.03	4,880,000	Africa, South Africa	Anglogold Ashanti
3	Moab Khotsong	30	21.37	20,310,000	Africa, South Africa	Anglogold Ashanti
4	Savuka	5	18.96	3,090,000	Africa, South Africa	Anglogold Ashanti
5	Kirkland Lake	5	16.39	2,371,000	Canada, Ontario	Kirkland Lake Gold
6	Gosowong	5	15.25	2,500,000	Indonesia	Newcrest
7	Zaruma	6	13.23	2,493,000	Equador	Dynasty Mining
8	Mponeng	122	12.60	49,550,000	Africa, South Africa	Anglogold Ashanti
9	Great Noligwa	11	12.41	4,510,000	Africa, South Africa	Anglogold Ashanti
10	Red Lake	21	11.81	8,014,000	Canada, Ontario	Goldcorp
11	Kopanang	24	11.79	9,130,000	Africa, South Africa	Anglogold Ashanti
12	Vatukoula	15	10.10	4,980,000	Fiji	Vatukoula Gold Mines
13	Kupol	10	10.06	3,203,000	Russia	Kinross
14	Olympias	12	10.00	3,987,000	Greece	El Dorado
15	Rolspruit	24	9.72	7,500,000	Africa, South Africa	Harmony Gold
16	Bulyanhulu	54	9.67	16,859,269	Africa, Tanzania	Barrick
17	Bambanani	5	9.33	1,500,000	Africa, South Africa	Harmony Gold
18	Phakisa	20	8.77	5,750,000	Africa, South Africa	Harmony Gold
19	Mnogovershinoe	7	8.44	1,900,000	Russia	Highland Gold
20	Efemcukuru	8	8.42	2,153,000	Turkey	El Dorado
21	Plutonic	8.5	8.27	2,260,000	Australia	Barrick
22	Poplar	14	8.00	3,600,000	Africa, South Africa	Harmony Gold
23	Driefontein	75	7.55	18,200,000	Africa, South Africa	Gold! elds
24	Novoshirokinksoye	8	7.39	1,900,000	Russia	Highland Gold
25	Kusasalethu (Elandsrand)		6.79	8,300,000	Africa, South Africa	Harmony Gold
26	Granny Smith	11	6.69	2,313,000	Australia	Barrick
27	Corrego Do Sitio	18	6.58	3,860,000	Brazil	Anglogold Ashanti
28	Jundee	5	6.46	1,017,000	Australia	Newmont
29	Jerritt Canyon	15	6.45	3,071,000	USA, Nevada	Yukon-Nevada Gold
30	Kalana Gold Mine	6	6.35	1,143,000	Africa, Mali	Avnel Gold Mining
31	El Penon	19	6.30	3,755,000	Chile	Yamana
32	Target	14	6.22	2,800,000	Africa, South Africa	Harmony Gold
33	Kloof	53	6.16	10,500,000	Africa, South Africa	Gold! elds
34	South Deep	149	6.16	29,500,000	Africa, South Africa	Gold! elds
35	Seabee	7	6.10	1,299,000	Canada, Quebec	Claude Resources
36	Tshepong	24	6.09	4,700,000	Africa, South Africa	Harmony Gold
37	Musselwhite	17	6.08	3,344,000	Canada, Ontario	Goldcorp
38	Lamego	6	6.07	1,170,000	Brazil	Anglogold Ashanti
39	Obuasi	154	5.98	29,520,000	Africa, Ghana	Anglogold Ashanti
40	Lamaque	13	5.93	2,439,000	Canada, Quebec	White Tiger Gold
41	Holt	11	5.82	1,983,000	Canada, Quebec	St. Andrew Gold! elds
42	Timmins West Mine	10	5.82	1,870,000	Canada, Ontario	Lake Shore Gold
43	Walhi	6	5.80	1,044,200	New Zealand	Newmont
44		6	5.70	1,100,000	Africa, South Africa	Harmony Gold
45	Masimong Evander	o 21	5.70			Harmony Gold
	Evander Turgouise Pidge	121		3,800,000	Africa, South Africa	
46	Turqouise Ridge		5.57 5.20	21,650,000	USA, Nevada	Barrick / Newmont
47 48	Tanami	28 7	5.20	4,732,000	Australia	Newmont Prigus Cold
	Black Fox		5.18	1,115,000	Canada, Ontario	Brigus Gold
49	Burnstone	139	5.08	22,692,701	Africa, South Africa	Great Basin Gold
50	Beatrix	41	4.86	6,400,000	Africa, South Africa	Gold! elds

## Top 50 Undeveloped Deposits by Grade:

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership
1	Dvoinoye	2	17.82	1,318,000	Russia	Kinross
2	BruceJack	30	17.45	17,056,000	Canada, BC	Pretium Resources
3	Kencana	3	17.17	1,435,000	Indonesia	Newcrest
4	F2 Deposit	5	16.55	2,794,000	Canada, Ontario	Rubicon Minerals
5	Cerro Blanco	4	15.52	1,931,000	Peru	Goldcorp
6	Suyai	6	14.19	2,550,000	Argentina	Yamana
7	Tyrone	7	12.75	2,690,000	Ireland	Dalradian Resources
8	Buritica	8	12.30	3,164,000	Colombia	Continental Gold
9	Idaho-Maryland Deposit	4	11.88	1,490,000	USA, California	Emgold Mining Corporation
10	Jerusalem	3	11.88	1,295,000	Equador	Dynasty Mining
11	Westwood	10	11.48	3,727,000	Canada, Quebec	lAMGold
12	Cochenour	9	10,85	3,210,000	Canada, Ontario	Goldcorp
13	Madsen	4	9.47	1,225,000	Canada, Ontario	Claude Resources
14	Eleonore	26	9.19	7,680,000	Canada, Quebec	GoldCorp
15	Fire Creek	7	8.93	2,147,000	USA, Nevada	Klondex Mines
16	Cerro Negro	24	8.08	6,133,000	Argentina	Goldcorp
17	Kyzl	40	8.05	10,354,000	Kazakhzstan	lvanhoe
18	Cuiaba	21	7.71	5,170,000	Brazil	Anglogold Ashanti
19	Mongbwalu	8	7.34	1,900,000	Africa, DRC	Anglogold Ashanti
20	Taldybulak	9	7.23	2,077,000	Kyrgyz Republic	Zijin Mining / Kyrgyz Government
21	Fruta del Norte	52	6.64	11,030,000	Equador	Kinross
22	Quimsacocha	10	6.61	2,168,000	Equador	IAMGold
23	San Jose Mine	6	6.47	1,290,000	Argentina	Mcewen Mining/ Hochschild
24	Gold River Trend	6	5.97	1,144,000	Canada, Ontario	Lake Shore Gold
25	Back River	32	5.81	6,046,000	Canada, Nunavut	Sabina Gold & Silver
26	Meliadine	38	5.76	6,977,000	Canada, Nunavut	Agnico Eagle
27	Eastern Dragon	6	5.63	1,032,000	China	El Dorado
28	Modder East	8	5.44	1,400,000	Africa, South Africa	Gold One International
29	Rio Blanco	6	5.44	1,015,000	Equador	International Minerals
30	Angostura	14	5.38	2,405,000	Colombia	Eco Oro
31	Three Bluffs	9	5.31	1,507,000	Canada, Nunavut	North Country Gold
32	Coringa	7	5.12	1,095,000	Brazil	Magellan Minerals
33	El Valle-Boina	17	4.86	2,612,000	Spain	Orvana
34	Cerro Moro	7	4.80	1,106,000		Extorre Gold
35	Dynasty	14	4.70	2,165,000	Argentina Eguador	Dynasty Mining
36	Comtois	8	4.70 4.64	1,212,000	Canada, Quebec	Maudore Resources
	Red Hill - Gold Rush	48	4.59	7,021,000	USA, Nevada	Barrick
37	Tabakoto	10	4.58 4.58	1,409,000	Africa	Avion Gold
38					Krygz Republic	
39	Contact Project	20	4,33	2,784,000	, ,	Chaarat Gold Holdings
40	Main Project	11	4.23	1,511,000	Krygz Republic	Chaarat Gold Holdings
41	Albazino	17	4.21	2,300,000	Russia	Polymetal
42	Amantaytau	23	4.19	3,100,000	Uzbekistan	Oxus Gold
43	Crixas	14	4.11	1,915,000	Brazil	Kinross
44	Pilar (Jordino)	21	4.11	2,774,000	Brazil	Yamana
45	Hardrock	28	4.07	3,600,000	Canada, Ontario	Premier Gold Mines
46	Inmaculda	12	4.02	1,550,000	Peru	International Minerals
47	Changkeng	8	3.94	1,009,000	China	Minco Gold
48	Jeronimo	19	3.93	2,427,000	Chile	Yamana
49	Pickle Crow	10	3.86	1,260,000	Canada, Ontario	PC Gold
50	Lalor	13	3.85	1,560,000	Canada, Manitoba	Hudbay Minerals

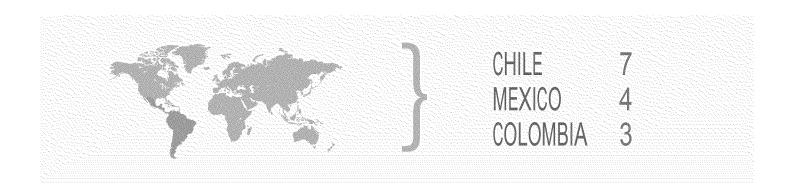
Top 25 Mines & Deposits in U.S. and Canada:

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership	Producing
4	Pebble Deposit	10,177	0.33	107,300,000	USA, Alaska	Northern Dynasty / Ang	lo
2	KSM Deposit	3,906	0.51	63,979,000	Canada, BC	Seabridge Gold	
3	Donlin Creek	634	2.21	45,000,000	USA, Alaska	Barrick / NovaGold	
4	Snow! eld	2,203	0,49	34,950,000	Canada, BC	Pretium Resources	
5	Detour Lake Mine	887	1.02	29,119,000	Canada, Ontario	Detour Gold	
6	Hycroft	2,367	0.34	26,181,000	USA, Nevada	Allied Nevada Gold	t
7	Turqouise Ridge	121	5.57	21,650,000	USA, Nevada	Barrick / Newmont	ŧ.
8	Carlin	376	1.75	21,225,000	USA, Nevada	Newmont	t
9	Livengood	1,190	0.54	20,631,000	USA, Alaska	Int'l Tower Hill Mines	
10	Cortez Operation	348	1.78	19,860,000	USA, Nevada	Barrick	t
11	BruceJack	30	17.45	17,056,000	Canada, BC	Pretium Resources	
12	Goldstrike	112	4.23	15,188,000	USA, Nevada	Barrick	1
13	Cripple Creek	579	0.76	14,100,000	USA, Colorado	Anglogold Ashanti	1
14	Canadian Malartic	423	0.98	13,380,000	Canada, Quebec	Osisko	t
15	Porcupine	303	1.22	11,930,000	Canada, Ontario	Goldcorp	1
16	Phoenix	722	0.49	11,427,420	USA, Nevada	Newmont	t
17	Courageous Lake	156	2.27	11,403,000	Canada, BC	Seabridge Gold	
18	Galore Creek	1,160	0.29	10,700,000	Canada, BC	Novagold/Teck	
19	Hammond Reef	530	0.62	10,520,000	Canada, Ontario	Osisko	
20	Blackwater	334	0.80	8,616,000	Canada, BC	Newgold	
21	Casino Copper	1,058	0.24	8,300,000	Canada, BC	Western Copper	
22	Red Lake	21	11.81	8,014,000	Canada, Ontario	Goldcorp	t
23	Prosperity Mine	831	0.29	7,700,000	Canada, BC	Taseko Mines	
24	Eleonore	26	9.19	7,680,000	Canada, Quebec	GoldCorp	
25	Bald Mountain	456	0.51	7,512,000	USA, Nevada	Barrick	t

UNITED STATES	Nevada Alaska Colorado	7 3 1
CANADA	British Columbia Ontario Quebec	4

Top 25 Mines & Deposits in Latin America:

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership	Producing
1	Pueblo Viejo	490	2.38	37,451,666	Dominican Republic	Barrick / Goldcorp	1
2	Cerro Cassale	1,995	0.51	32,587,666	Chile	Barrick / Kinross	
3	Las Cristinas	1,116	0.86	30,804,000	Venezuela	Government of Venezue	la
4	Pascua-Lama	662	1.21	25,810,000	Chile	Barrick	
5	Penasquito	2,278	0.35	25,276,000	Mexico	Goldcorp	t.
6	Caspiche	1,646	0.47	24,869,000	Chile	Exeter Gold	
7	La Colosa	830	0.91	24,200,000	Colombia	Anglogold Ashanti	
8	Paracatu	1,788	0.39	22,692,000	Brazil	Kinross	t
9	Metates	1,246	0.49	19,828,000	Mexico	Chesapeake	
10	Conga	924	0.59	17,473,300	Peru	Newmont/ Buenaventura	à
11	Maricunga	851	0.56	15,366,000	Chile	Kinross	t
12	Marmato	489	0.91	14,377,000	Colombia	Gran Colombia	
13	El Morro	804	0.53	13,788,000	Chile	Goldcorp / NewGold	
14	Los Filos	520	0.81	13,564,000	Mexico	Goldcorp	1
15	Yanacocha	470	0.88	13,288,600	Peru	Newmont / Buenaventur	a t
16	Veladero	544	0.66	11,595,000	Argentina	Barrick	t
17	Choco 10	189	1.83	11,127,000	Venezuela	Rusoro	t
18	Titiribi	635	0.54	11,079,000	Colombia	Sunward	
19	Fruta del Norte	52	6.64	11,030,000	Equador	Kinross	
20	Volcan	456	0.71	10,383,000	Chile	Andina Minerals	
21	Toroparu	419	0.74	10,006,000	Guyana	Sandspring Resources	
22	Gaby	499	0.62	10,000,000	Equador	International Minerals/Ch	ninese Firm
23	Agua Rica	1,752	0.18	9,929,000	Argentina	Yamana/Glencore/Goldco	orp
24	Lobo Marte	311	0.98	9,757,000	Chile	Kinross	
25	Orisyvo	278	1.05	9,400,000	Mexico	Fresnillo	

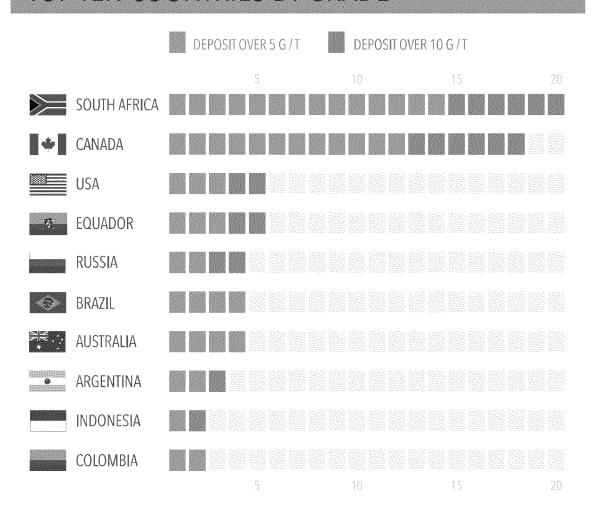


## Top 25 Mines & Deposits in Asia / Oceania:

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership	Producing
1	Grasberg	4,909	0.56	88,106,000	Indonesia	Freeport Mcmoran	1
2	Natalka	1,078	1.70	58,950,000	Russia	Polyus Gold	
3	Lihir	830	2.10	56,000,000	Papua New Guiniea	Newcrest	t
4	Muruntau	625	2.49	50,000,000	Uzbekistan	Government of Uzbekista	an t
5	Olimpiada	459	3.22	47,500,000	Russia	Polyus Gold	L
6	Oyu Tolgoi	3,754	0.38	46,085,000	Mongolia	lvanhoe	ŧ
7	Reko Diq	5,864	0.22	42,400,000	Pakistan	Barrick / Pakistan	
8	Sukhoi Log	384	2.67	33,000,000	Russia	Government of Russia	
9	Cadia East	2,300	0.45	33,000,000	Australia	Newcrest	t
10	Boddington	1,474	0.58	27,576,000	Australia	Newmont	t
11	Golpu	870	0.69	19,300,000	Papua New Guiniea	Newcrest	
12	Kisladag	960	0.55	17,016,000	Turkey	El Dorado	t
13	Kumtor	140	3.15	14,194,000	Krygz Republic	Centerra	t
14	Blagodatnoye	172	2.36	13,075,000	Russia	Polyus Gold	
15	King King	1,151	0.32	11,943,000	Philippines	St. Augustine Gold	
16	Porgera	120	3.07	11,826,262	Papua New Guiniea	Barrick	t
17	Super Pit / Kalgoorlie	240	1.34	10,374,000	Australia	Barrick / Newmont	t
18	Kyzl	40	8.05	10,354,000	Kazakhzstan	lvanhoe	
19	Batu Hijau	1,269	0.25	10,304,000	Indonesia	Newmont / Sumitomo	t
20	Malomir	376	0.81	9,810,000	Russia	Petropavlovsk	t
21	Verninskoye	127	2.33	9,537,000	Russia	Polyus Gold	t
22	Mt. Todd	341	0.83	9,036,000	Australia	Vista Gold	
23	OK Tedi	250	1.06	8,520,000	Papua New Guiniea	Inmet	
24	Telfer Main Dome	390	0.67	8,400,000	Australia	Newcrest	1
25	Maoling	317	0.76	7,700,000	China	Mundoro Capital	



## TOP TEN COUNTRIES BY GRADE (GRAMS PERTONNE)

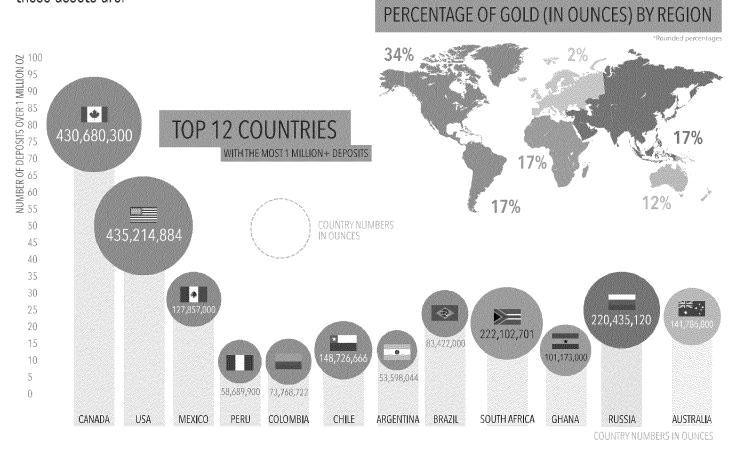


### 2012 Results Discussion

This year's results con!rmed both the scarcity of gold deposits as well as the lower-grade production trends facing the industry. Even with our generous thresholds allowing inferred resources to be included in the database, we were able to identify only 439 mines or deposits containing over 1 million ounces of gold.

In our view a mine or deposit is an asset no different than a farm, commercial property, or !nancial security. Yet when it comes to gold, there are only 439 assets that meet the industry perceived economic threshold of 1 million ounces. Last year, we compared this !gure to the tens of thousands of commercial real estate properties in the world or the nearly 72,000 !nancial securities. While the crustal abundance of gold is !xed, and discovery grades continue to decline, there is no limit to the creation of !nancial securities and plenty of land and building materials to construct more property. Simply put, a gold mine or deposit with over 1 million ounces is a very rare asset. This is especially true when viewing the geographical distribution of the mines & deposits:

Geographically, the distribution of the 439 deposits further confirms just how rare these assets are:



### Independently Owned Undeveloped Deposits

Another data point we found fascinating was that out of 439 mines or deposits, 189 are in fact producing mines owned by companies with an average market capitalization of \$1.8 Billion. This leaves us with a universe of undeveloped deposits over 1 million ounces of just 250. Of course some of these 250 deposits are owned by miners (84) while just 166 are owned by independent junior companies, private companies, or government sponsored enterprises. Investors seeking leverage to gold should focus on these companies as they provide the best exposure to a rising gold price environment. We have attached a table with these deposits and companies at the end of the report titled "Undeveloped Deposits over 1mm oz owned by Independent Juniors".

It is interesting to note that in Canada we were able to Ind only 59 undeveloped deposits over 1mm ounces owned by 49 companies (41 Independents). In the United States we found only 33 deposits owned by 26 companies (23 Independents).

Internally, the purpose of this report was to identify potential short-comings in the theories employed by leading thinkers in the gold industry. After reviewing nearly 2,000 companies in the space we can objectively say that are no such red "ags. Annual discoveries in 2011 lacked the gravitas required to move the needle on the aggregate in-situ !gures after incorporating depletion. This was surprising as historically high gold prices have provided nearly unprecedented capital to gold exploration companies and we had assumed that after tallying up the year's discoveries there would be a signi!cant nominal gain in ounces.

Another important data point was observed with regards to the grade of producing mines vs. undeveloped deposits with grades for undeveloped deposits being markedly lower (37%) guaranteeing the need for higher energy input in the future only to sustain current production !gures.

Another caveat with the undeveloped deposits in the database is that some of the largest ones face signi!cant permitting headwinds. Pebble, Reko Diq, Donlin, KSM, and Rosia Montana which represent nearly 20% of the undeveloped ounces in the database may not become mines for 10, 20 and even 30 years.

### Quality Deposits are Rare

While this report and the accompanying database provide an accurate view of global mine supply, there are crucial qualitative metrics still missing. Even high grade deposits with no infrastructure are inferior to easily mined bulk tonnage deposits with close proximity to infrastructure in stable geopolitical jurisdictions.

Looking at the matrix of undeveloped deposits, one can see why size and even grade are not the most important attributes when predicting which deposit will become a mine. Let us compare Cerro Cassale in Chile with 32.5mm ounces to Titiribi in Colombia with 11.1mm ounces (and continues to grow). While Cerro Cassale is nearly three times the size, its remote location in the Maricunga desert has forced Barrick to budget over \$500mm for a120km water pipeline. Titiribi, owned by independent junior Sunward Resources, is located on a paved road with both water and power running directly to the site. While it is too early to estimate CAPEX for Titiribi, it is not farfetched to assume that for the amount Barrick will be spending transporting water from point A to point B, Titiribi will be producing a few hundred thousand ounces of gold per annum.

In conclusion, we would like to stress that while this database serves as an effective starting point we urge investors to incorporate additional metrics such as geopolitical risk, permitting challenges, and most importantly infrastructure when ranking deposits for investment.

### Global Mine Supply Exercise

In this section we will attempt to make sense of the 3,015,542,164 ounce (93,796 tonnes) !gure which is the sum of all in-situ ounces in the database. As we previously explained this !gure is inaccurate as it relates to potentially mined ounces in the future due to the following factors:

Inclusion of inferred resources in global contained ounces.

Not applying any economic pit outlines.

Not applying any metallurgical recovery rates.

The inclusion of undeveloped deposits with no clear path towards permitting.

In order to project an accurate !gure we will adjust the 3,015,542,164 ounce number through an exercise that incorporates metallurgical recovery rates, economic pit outlines, and physical constraints that come with moving the billions of tonnes that host these ounces.

First, we will apply a metallurgical recovery rate. Industry averages tend to be 70-90% depending on the type of mineralization. Casting a wide net, we will use 80% as our metallurgical recovery rate. Following this step we are left with 2,412,433,133 ounces.

Next, we will apply economic pit outlines to the resource !gure. Once again in an effort to include the most possible ounces we will apply only a 10% reduction for potential pit outlines. Given the amount of inferred ounces in our database this is a very generous !gure. Following this step we are left with 2,171,190,358 ounces or 67,533 tonnes.

Next, we will estimate the physical constraints required to mine the remaining ounces. As these ounces exist within 81 billion tonnes of ore (49 billion tonnes for undeveloped deposits containing 1.05 billion ounces after applying economic pit outlines and metal-lurgical recoveries) they cannot be immediately extracted from the earth's crust.

As we are estimating future potential supply, the 189 producing mines are less important given their production is already factored in the existing supply mix. A more relevant exercise is one projecting future supply from undeveloped deposits as only they could meaningfully disrupt the supply & demand fundamentals.

Let us assume for a moment that all 250 undeveloped deposits were somehow permitted and !nanced tomorrow. With 49 billion tonnes to mine at an average grade of .66 g/t it would take no less than 25 years to extract the 1,050,000,000 ounces contained within these deposits. Arriving at this !gure, we assume that the average build time would be 3 years and the average mill size would be 25,000 tonnes per day.

Even with our unrealistic scenario introducing all 250 undeveloped deposits into the supply mix at once, we can only quantify an increase of roughly 42mm ounces of gold production or 1,306 tonnes per annum. Compare that to current gold production of roughly 2,800 tonnes or 90mm ounces per annum.

Realistically, 50% or more of the deposits in the database will most likely remain deposits 25 years from now for a variety of factors including: permitting, ability to !nance a mine, and attractiveness to a producer (producer balance sheets are so large they require signi!cant projects to be accretive, making even most 1mm-2mm ounce deposits unattractive).

Consequently, the guaranteed depletion in the existing production mix coupled with a more realistic introduction of new mines into the mix (as opposed to our theoretical tomorrow scenario) makes it clear that barring multiple high-grade, multi-million ounce discoveries each year, a signi!cant increase in gold production is unlikely. Moreover our back of the envelope calculations point towards gold production peaking at some point between 2022 and 2025 assuming the 90mm ounce per year !gure is maintained.

## All 439 Mines & Deposits (Descending Order by Global In Situ Resource)

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership	Producing
- April 1	Pebble Deposit	10,177	0.33	107,300,000	USA, Alaska	Northern Dynasty / Anglo	)
2	Grasberg	4,909	0.56	88,106,000	Indonesia	Freeport Mcmoran	1
3	KSM Deposit	3,906	0.51	63,979,000	Canada, BC	Seabridge Gold	
4	Natalka	1,078	1.70	58,950,000	Russia	Polyus Gold	
5	Lihir	830	2.10	56,000,000	Papua New Guiniea	Newcrest	t
6	Muruntau	625	2.49	50,000,000	Uzbekistan	Government of Uzbekista	in t
7	Mponeng	122	12.60	49,550,000	Africa, South Africa	Anglogold Ashanti	t
8	Olimpiada	459	3.22	47,500,000	Russia	Polyus Gold	t
9	Oyu Tolgoi	3,754	0.38	46,085,000	Mongolia	lvanhoe	t
10	Donlin Creek	634	2.21	45,000,000	USA, Alaska	Barrick / NovaGold	
11	Reko Diq	5,864	0.22	42,400,000	Pakistan	Barrick / Pakistan	
12	Pueblo Viejo	490	2.38	37,451,666	Dominican Republic	Barrick / Goldcorp	t
13	Snow! eld	2,203	0.49	34,950,000	Canada, BC	Pretium Resources	
14	Cadia East	2,300	0.45	33,000,000	Australia	Newcrest	1
15	Sukhoi Log	384	2.67	33,000,000	Russia	Government of Russia	1.7
16	Cerro Cassale	1,995	0.51	32,587,666	Chile	Barrick / Kinross	
17	Las Cristinas	1,116	0.86	30,804,000	Venezuela	Government of Venezuel	а
18	Obuasi	154	5.98	29,520,000	Africa, Ghana	Anglogold Ashanti	t
19	South Deep	149	6.16	29,500,000	Africa, South Africa	Gold! elds	t
20	Detour Lake Mine	887	1.02	29,119,000	Canada, Ontario	Detour Gold	· ·
21	Boddington	1,474	0.58	27,576,000	Australia	Newmont	+
22	Hycroft	2,367	0.34	26,181,000	USA, Nevada	Allied Nevada Gold	
23	Pascua-Lama	662	1.21	25,810,000	Chile	Barrick	
24	Penasquito	2,278	0.35	25,276,000	Mexico	Goldcorp	
25	Caspiche	1,646	0.47	24,869,000	Chile	Exeter Gold	
26	La Colosa	830	0.91	24,200,000	Colombia	Anglogold Ashanti	
27	Burnstone	139	5.08	22,692,701	Africa, South Africa	Great Basin Gold	4
28	Paracatu	1,788	0.39	22,692,000	Brazil	Kinross	t t
29	Turqouise Ridge	121	5.57	21,650,000	USA, Nevada	Barrick / Newmont	£.
30	Carlin	376	1.75	21,225,000	USA, Nevada	Newmont	į.
31	Livengood	1,190	0.54	20,631,000	USA, Alaska	Int'l Tower Hill Mines	
32	Tasiast	610	1.04	20,418,000	Africa, Mauritania	Kinross	4
33	Moab Khotsong	30	21.37	20,310,000	Africa, South Africa	Anglogold Ashanti	
34	Cortez Operation	348	1.78	19,860,000	USA, Nevada	Barrick	
35	Metates	1,246	0.49	19,828,000	Mexico	Chesapeake	
36	Golpu	870	0.69	19,300,000	Papua New Guiniea	Newcrest	
37	Ahafo	337	1.76	19,105,000	Africa, Ghana	Newmont	4
38	Rosia Montana	556	1.03	18,500,000	Romania	Gabriel Resources	į.
39	Driefontein	75	7.55	18,200,000	Africa, South Africa	Gold! elds	t
40	Conga	924	0.59	17,473,300	Peru	Newmont/ Buenaventura	-
41	BruceJack	30	17.45	17,056,000	Canada, BC	Pretium Resources	
42	Kisladag	960	0.55	17,036,000	Turkey	El Dorado	
43	Bulyanhulu	960 54	9.67	16,859,269	Africa, Tanzania	Barrick	1
44	Sukari Mine	54 454	1.06	15,430,000			1
		454 851	0.56		Egypt Chile	Centamin Egypt	T
45	Maricunga	112		15,366,000	Chile	Kinross Barrick	Ţ
46	Goldstrike		4.23	15,188,000	USA, Nevada		I
47	Marmato	489	0.91	14,377,000	Colombia	Gran Colombia	×
48	Kumtor	140	3.15	14,194,000	Krygz Republic	Centerra	ŧ.
49	Cripple Creek	579	0.76	14,100,000	USA, Colorado	Anglogold Ashanti	ŧ
50	El Morro	804	0.53	13,788,000	Chile	Goldcorp / NewGold	

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership	Producing
51	Los Filos	520	0.81	13,564,000	Mexico	Goldcorp	
52	Canadian Malartic	423	0.98	13,380,000	Canada, Quebec	Osisko	t
53	Yanacocha	470	0.88	13,288,600	Peru	Newmont / Buenaventur	a t
54	Blagodatnoye	172	2.36	13,075,000	Russia	Polyus Gold	1
55	King King	1,151	0.32	11,943,000	Philippines	St. Augustine Gold	
56	Porcupine	303	1.22	11,930,000	Canada, Ontario	Goldcorp	
57	Porgera	120	3.07	11,826,262	Papua New Guiniea	Barrick	†
58	Veladero	544	0.66	11,595,000	Argentina	Barrick	t
59	Phoenix	722	0.49	11,427,420	USA, Nevada	Newmont	t
60	Courageous Lake	156	2.27	11,403,000	Canada, BC	Seabridge Gold	t
61	Geita	102	3.44	11,270,000	Africa, Tanzania	Anglogold Ashanti	
62	Choco 10	189	1.83	11,127,000	Venezuela	Rusoro	1
63	Titiribi	635	0.54	11,079,000	Colombia	Sunward	t
64		52	6.64	11,030,000	Equador	Kinross	
65	Fruta del Norte Sadiola	217	1.58	11,025,000			
					Africa, Mali	Anglogold Ashanti	
66	Galore Creek	1,160	0.29	10,700,000	Canada, BC	Novagold/Teck	t
67	Hammond Reef	530	0.62	10,520,000	Canada, Ontario	Osisko	
68	Kloof	53	6.16	10,500,000	Africa, South Africa	Gold! elds	
69	Volcan	456	0.71	10,383,000	Chile	Andina Minerals	all a
70	Super Pit / Kalgoorlie	240	1.34	10,374,000	Australia	Barrick / Newmont	
71	Kyzl	40	8.05	10,354,000	Kazakhzstan	lvanhoe	t
72	Batu Hijau	1,269	0.25	10,304,000	Indonesia	Newmont / Sumitomo	
73	Toroparu	419	0.74	10,006,000	Guyana	Sandspring Resources	1
74	Gaby	499	0.62	10,000,000	Equador	International Minerals/Cl	ninese Firm
75	Agua Rica	1,752	0.18	9,929,000	Argentina	Yamana/Glencore/Goldco	orp
76	Tarkwa	244	1.26	9,900,000	Africa, Ghana	Gold! elds	
77	Malomir	376	0.81	9,810,000	Russia	Petropavlovsk	t
78	Lobo Marte	311	0.98	9,757,000	Chile	Kinross	t
79	Verninskoye	127	2.33	9,537,000	Russia	Polyus Gold	
80	Orisyvo	278	1.05	9,400,000	Mexico	Fresnillo	t
81	Kopanang	24	11.79	9,130,000	Africa, South Africa	Anglogold Ashanti	
82	Mt. Todd	341	0.83	9,036,000	Australia	Vista Gold	t
83	Tengrela	271	1.04	9,024,000	Africa, Ivory Coast	Perseus Mining	
84	Loulo	62	4.41	8,800,000	Africa, Mali	Randgold	
85	Rosebel	276	0.99	8,772,000	Suriname	IAMGold	1
86	Blackwater	334	0.80	8,616,000	Canada, BC	Newgold	t
87	OK Tedi	250	1.06	8,520,000	Papua New Guiniea	Inmet	•
88	Telfer Main Dome	390	0.67	8,400,000	Australia	Newcrest	t
89	Kusasalethu (Elandsrand)		6.79	8,300,000	Africa, South Africa	Harmony Gold	+
90	Kibali	82	3.14	8,300,000	Africa, DRC	Anglogold Ashanti	t
91	Casino Copper	1,058	0.24	8,300,000	Canada, BC	Western Copper	
92	Red Lake	21	11.81	8,014,000	Canada, Ontario	Goldcorp	
93	Maoling	317	0.76	7,700,000	China China	Mundoro Capital	•
			0.76		China Canada, BC		
94	Prosperity Mine	831		7,700,000		Taseko Mines	
95 oe	Akyem	146	1.64	7,684,000	Africa, Ghana	Newmont Cold Corp	
96	Eleonore	26	9.19	7,680,000	Canada, Quebec	GoldCorp	
97	Copler	158	1.49	7,550,000	Turkey	Alacer Gold	
98	Bald Mountain	456	0.51	7,512,000	USA, Nevada	Barrick	ŧ
99	Rolspruit	24	9.72	7,500,000	Africa, South Africa	Harmony Gold	t
100	Mount Milligan	727	0.32	7,468,000	Canada, BC	Thompson Creek Metals	des

Deposi	t Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership P	roducing
101 Edikan		207	1.07	7,118,000	Africa, Ghana	Perseus Mining	
102 Red Hill	l - Gold Rush	48	4,59	7,021,000	USA, Nevada	Barrick	
103 Meliadi		38	5.76	6,977,000	Canada, Nunavut	Agnico Eagle	
104 Rovina	Valley	370	0.59	6,960,000	Romania	Carpathian Gold	
105 Cote La		239	0.90	6,891,000	Canada, Ontario	i IAMGold	
106 Mulatos		250	0.84	6,785,000	Mexico	Alamos Gold	+
107 Laguna	s Norte	234	0.90	6,765,000	Peru	Barrick	t
108 Kuranal		170	1.24	6,754,000	Russia	Polyus Gold	t
109 Rainy R	iver	194	1.08	6,736,000	Canada, Ontario	Rainy River Resources	•
110 La Herra		309	0.68	6,731,000	Mexico	Newmont/Fresnillo	t
111 La Bode	eda	139	1.50	6,700,000	Colombia	AUX	
112 Chapac	얼룩 그리다 나라를 하는 이번 때문에 다른다.	1,072	0.19	6,687,000	Brazil	Yamana	t .
113 Aurora		57	3.60	6,600,000	Guyana	Guyana Gold! elds	
114 Laronde	9	52	3.88	6,462,000	Canada, Quebec	Agnico Eagle	· · · · · · · · · · · · · · · · · · ·
	Mountain	372	0.54	6,426,000	USA, Nevada	Barrick / Kinross	1
116 Beatrix	and the second s	41	4.86	6,400,000	Africa, South Africa	Gold! elds	t
	- Eagle Gold	300	0.66	6,355,000	Canada, Yukon	Victoria Gold	L.
118 Kittilia		43	4.64	6,341,000	Finland	Agnico Eagle	ŧ
119 Panimb	a	71	2.77	6,286,000	Russia	Polyus Gold	į.
	- Davidson	79	2.46	6,218,000	Canada, Ontario	Aurico	ŧ
Charles Salar Salar Salar Salar	Mountain	477	0.40	6,210,000	Canada, BC	Spanish Mountain Gold	
122 Twin Cr		98	1.97	6,188,400	USA, Nevada	Newmont	1
123 Skourie		361	0.53	6,170,000	Greece	El Dorado	t
124 Cerro N		24	8.08	6,133,000	Argentina	Goldcorp	
	Quinchia	490	0.39	6,087,000	Colombia	Batero	
126 La Aren	***************************************	743	0.25	6,048,000	Peru	Ria Alto	
127 Back Ri		32	5.81	6,046,000	Canada, Nunavut	Sabina Gold & Silver	
128 Mesqui		412	0.46	6,035,000	USA ,California	NewGold	4
129 Fort Kn		448	0.40	6,028,000	USA, Alaska	Kinross	
130 Simberi		169	1.10	6,010,000	Papua New Guiniea	Allied Gold Mining	t
10.000 (0.		115	1.62	6,003,000	Africa, DRC	Banro	t
131 Twangi 132 <b>Mana</b>	Za	85	2.17			Semafo	1
	-tan	112	1.65	5,963,000	Africa, Burkina Faso		
133 Padding				5,941,000	Australia	Zijin Mining	
134 Golden 135 Fasakan		95 464	1.91	5,820,000 5,701,000	USA, Idaho	Midas Gold	
135 Essakan		164	1,10	5,791,000	Africa, Burkina Faso	IAMGold	t
136 Borden		268 66	0.67	5,780,000	Canada, Ontario	Probe Mines	
137 Jacobin			2.71	5,764,000	Brazil	Yamana	T.
138 Phakisa		20	8.77	5,750,000	Africa, South Africa	Harmony Gold	t
139 Macrae		152	1.17	5,740,000	New Zealand	OceanaGold	t
	se Deposit	351	0.51	5,700,000	USA, Nevada	International Minerals	
141 Siguiri		222	0.78	5,550,000	Africa, Guinea	Anglogold Ashanti/Guinea	Gov.
142 Iduaprie	em	112	1.46	5,270,000	Africa, Ghana	Anglogold Ashanti	t
143 Waisoi		1,500	0.11	5,200,000	Fiji	Newcrest	
144 Esaase		145	1.12	5,190,000	Africa, Ghana	Keegan Resources	
145 Deno G	oold	336	0.48	5,182,000	Armenia	Dundee Precious Metals	1
146 Cuiaba		21	7.71	5,170,000	Brazil	Anglogold Ashanti	
147 North N	√lara	53	2.96	5,052,000	Africa, Tanzania	Barrick	t
148 Kiaka		147	1.06	5,029,000	Africa, Burkina Faso	Volta Resources	
149 Vatuko		15	10.10	4,980,000	Fiji	Vatukoula Gold Mines	t
150 Tautona	а	7	23.03	4,880,000	Africa, South Africa	Anglogold Ashanti	t

Dep	oosit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership	Producing
151 Haile	e Deposit	91	1.65	4,840,000	USA, North Carolina	Romarco Minerals	
152 Volta	a Grande	88	1.70	4,818,000	Brazil	Belo Sun	
153 Chai	ng Shan Hao	230	0.64	4,739,000	China	China Gold Int'l	1
154 Tana	ami	28	5.20	4,732,000	Australia	Newmont	1
155 <b>Pino</b>	s Altos	90	1,62	4,718,000	Mexico	Agnico Eagle	
156 Tshe	epong	24	6.09	4,700,000	Africa, South Africa	Harmony Gold	t
157 Nyar	nzaga	97	1.48	4,600,000	Africa, Tanzania	Barrick	
158 <b>Buz</b> v	wagi	107	1.33	4,579,000	Africa, Tanzania	Barrick	t
159 Chel	lopech	37	3.85	4,530,000	Bulgaria	Dundee Precious Metals	t
160 Grea	at Noligwa	11	12.41	4,510,000	Africa, South Africa	Anglogold Ashanti	t
161 <b>Obo</b>	otan	60	2.35	4,510,000	Africa, Ghana	PMI Gold	
162 <b>Bog</b> o	oso Prestea	74	1.88	4,486,000	Africa, Ghana	Golden Star Resources	
55 TAX TAX	achab	119	1.17	4,480,000	Africa, Namibia	Anglogold Ashanti	1
164 Slee	per	303	0.46	4,458,000	USA, Nevada	Paramount Gold	•
44848484	maria	460	0.30	4,436,700	Argentina	NGEX	
166 Sincl	hao	416	0.33	4,414,000	Peru	Andean American	
167 Xieto	ongmen	219	0.61	4,310,000	Tibet	Continental Minerals	
68 Pion	•	147	0.90	4,250,000	Russia	Petropavlovsk	t
69 Saw	ayaerdun	110	1.18	4,190,000	China	GobiMin	
	igold Mine	253	0.51	4,172,544	USA, Nevada	GoldCorp/Barrick	t
	o Vanguardia	42	3.05	4,140,000	Argentina	Anglogold Ashanti	i
	ng Valley	249	0.52	4,131,000	USA, Nevada	Midway Gold	•
120000000000000000000000000000000000000	th Arturo (Dee)	91	1.40	4,103,000	USA, Nevada	Barrick / Goldcorp	
	unt Margaret	523	0.24	4,036,000	USA, Washington	Ascot Resources	
	mpias	12	10.00	3,987,000	Greece	El Dorado	
A	idowBank	45	2.73	3,979,000	Canada, Nunavut	Agnico Eagle	†
	Icamayo	102	1.20	3,946,000	Argentina	Yamana	+
78 Jinfe	•	36	3.43	3,944,000	China	El Dorado	t
	gino Gold	122	1.00	3,897,000	Canada, Ontario	Prodigy Gold	· ·
_	tersburg	34	3.57	3,890,000	South Africa	Gold One International	
81 Auri	salah saken kalendaran dari balan bala	93	1.30	3,886,000	Brazil	Luna Gold	+
	rego Do Sitio	18	6.58	3,860,000	Brazil	Anglogold Ashanti	•
183 <b>Mo</b> r		37	3.20	3,858,000	Mexico	Torex Gold	
84 Cert		70	1.72	3,837,000	Romania	El Dorado	
85 Dach		39	3.08	3,810,000	China	Inter-Citic	
86 Evan	_	21	5.63	3,800,000	Africa, South Africa	Harmony Gold	t
87 Cow		104	1.13	3,770,000	Australia	Barrick	t.
188 El Pe		19	6.30	3,755,000	Chile	Yamana	t
	stwood	10	11.48	3,727,000	Canada, Quebec	IAMGold	£.
	apateena	203	0.57	3,700,000	Australia	Oz Minerals	
	picana	54	2.15	3,690,000	Australia	Anglogold Ashanti	
192 <b>Gol</b> c		68	1.69	3,680,000	Canada, Quebec	Angiogold Ashanti Agnico Eagle	
	ngpole	90	1.09	3,670,000	Canada, Quebec Canada, Ontario	Gold Canyon Resources	1
193 əpili 194 Amı		144	0.79	3,666,000	Armenia	Lydian International	
194 Anic 195 Popl		144	8.00	3,600,000	Africa, South Africa	Harmony Gold	
		38					I .
•	=		2.95	3,600,000	Africa, Ivory Coast	Randgold	ŧ.
	drock	28	4.07	3,600,000	Canada, Ontario	Premier Gold Mines	
198 Meri		86	1.30	3,579,000	Suriname	Newmont	
199 Pinso		30	3.69	3,573,500	USA, Nevada	Atna / Barrick	<b>*</b>
200 <b>Casa</b>	a Berardi Mine	24	4.57	3,570,000	Canada, Quebec	Aurizon Mines	

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership	Producing
201	Nevada Stock Piles	68	1.61	3,530,000	USA, Nevada	Newmont	
202	Bombore	122	0.89	3,462,000	Africa, Burkina Faso	Orezone	
203	Ruby Hill	118	0.90	3,419,000	USA, Nevada	Barrick	1
204	Shahuindo	182	0.58	3,407,000	Peru	Sulliden	
205	Robertson	178	0.59	3,381,000	USA, Nevada	Coral Gold	
206	Sunrise Dam	37	2.86	3,360,000	Australia	Anglogold Ashanti	t
207	Duparquet	61	1.72	3,353,000	Canada, Quebec	Clifton Star Resources	
208	La Pepa	187	0.56	3,348,000	Chile	Yamana	
209	Musselwhite	17	6.08	3,344,000	Canada, Ontario	Goldcorp	t
210	Joanna Gold	78	1.33	3,339,000	Canada, Quebec	Aurizon Mines	
211	Zeravshan	60	1.69	3,247,000	Uzbekistan	Zijin Mining	1
212	El Castillo	328	0.31	3,244,000	Mexico	Argonaut Gold	t
213	Cochenour	9	10.85	3,210,000	Canada, Ontario	Goldcorp	
214		10	10.06	3,203,000	Russia	Kinross	
215	Buritica	8	12.30	3,164,000	Colombia	Continental Gold	
216	Camino Rojo	168	0.59	3,160,000	Mexico	Goldcorp	
217	Golden Highway	81	1.20	3,140,000	Canada, Ontario	Moneta Porcupine	
218	= :	88	1.10	3,134,000	Brazil	Jaguar Mining	
219		53	1.83	3,131,000	Central African Republic		
220	CMD Gold Mine	252	0.39	3,130,000	Chile	Lachlan Star	t
221	Whistler Deposit	225	0.43	3,130,000	USA, Alaska	Kiska Metals	
222	Amantaytau	23	4.19	3,100,000	Uzbekistan	Oxus Gold	
	Wa!	52	1.85	3,100,000	Papua New Guiniea	Newcrest	
224		5	18.96	3,090,000	Africa, South Africa	Anglogold Ashanti	1
225		73	1.32	3,074,000	China	Majestic Gold	
226	Jerritt Canyon	15	6.45	3,071,000	USA, Nevada	Yukon-Nevada Gold	t
227	Chertovo Koryto	53	1.80	3,044,000	Russia	Polyus Gold	
	Lefa	66	1.41	3,000,000	Africa, Guinea	Severstal	4
229		31	3.01	2,999,000	Russia	Polyus Gold	+
230	Dolores Mine	180	0.51	2,970,000	Mexico	Mine! nders	+
	Alumbrara	256	0.36	2,963,344	Argentina	Goldcorp / Yamana	
	Lindero	182	0.51	2,950,000	Argentina	Mans! eld Minerals	
233		67	1.35	2,900,000	Africa, Ivory Coast	Newcrest	
234		187	0.48	2,858,000	Canada, BC	SnipGold	
	South Kalgoorlie	41	2.11	2,815,000	Australia	Alacer Gold	
236		14	6.22	2,800,000	Africa, South Africa	Harmony Gold	†
237	Prominent Hill	58	1.51	2,800,000	Australia	Oz Minerals	ŧ
238	Cerro Corona	111	0.78	2,800,000	Peru	Gold! elds	ę.
239	F2 Deposit	5	16.55	2,794,000	Canada, Ontario	Rubicon Minerals	
240	Cerro San Pedro	212	0.41	2,786,000	Mexico	NewGold	4
241	Contact Project	20	4.33	2,784,000	Krygz Republic	Chaarat Gold Holdings	
242	Pilar (Jordino)	21	4.11	2,774,000	Brazil	Yamana	
243		64	1.35	2,770,000	Canada, BC	Taseko Mines	
244		155	0.55	2,748,000	Brazil	Aura Minerals	
245	Quartz Mountain	103	0.83	2,744,000	USA, Oregon	Seabridge Gold	
246	Lugushwa	37	2.30	2,735,000	Africa, DRC	Banro	
247	Karma	91	0.93	2,731,000	Africa, Burkina Faso	Riverstone Resources	
248	Hidden Valley Kaveroi	57	1.47	2,700,000	Papua New Guiniea	Newcrest	
249	Ajax	500	0.17	2,700,000	Canada, BC	Abacus Mining	
	Tyrone	7	12.75	2,690,000	Ireland	Dalradian Resources	
200	Tyrone	1	12.10	2,000,000	HEIGHU	Danadian NesOulces	

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership	Producing
251	Increible	41	2.04	2,690,000	Venezuela	Rusoro	
252	Wasamac	32	2.58	2,685,000	Canada, Quebec	Richmont Mines	
253	Soledad Mountain	123	0.68	2,673,000	USA, California	Golden Queen	
254	Gold Ridge	64	1.26	2,613,000	Solomon Islands	Allied Gold Mining	<b>t</b>
255	El Valle-Boina	17	4.86	2,612,000	Spain	Orvana	
256	Kemess	142	0.57	2,600,000	Canada, BC	Aurico	†
257	Kwanika	537	0.15	2,585,000	Canada, BC	Serengeti Resources	*
258	Didipio	100	0.80	2,570,000	Philippines	OceanaGold	
259	Burnside Project	30	2.69	2,567,000	Australia	Crocodile Gold	
260	Suyai	6	14.19	2,550,000	Argentina	Yamana	
261	Tocantinzinho	77	1.03	2,541,000	Brazil	El Dorado	
262	Chirano	31	2.59	2,535,000	Africa, Ghana	Kinross	
263	Samira Hill	55	1.43	2,534,000	Africa, Niger	Semafo	1
264	C1- Santa Luz	49	1.62	2,525,000	Brazil	Yamana	
265	Caete Deposit	24	3.28	2,505,000	Brazil	Jaguar Mining	•
266	Gosowong	5	15.25	2,500,000	Indonesia	Newcrest	†
267	Syama	27	2.88	2,500,000	Africa, Mali	Resolute Mining	*
268	Randalls Gold Deposit	30	2.59	2,500,000	Australia	Integra Mining	
269	Zaruma	6	13.23	2,493,000	Equador	Dynasty Mining	t
270	Visokoe	68	1.14	2,490,000	Russia	Petropavlovsk	· ·
271	Hollister	2	32.81	2,489,500	USA, Nevada	Great Basin Gold	
	Ocampo	137	0.56	2,452,000	Mexico	Aurico	
273	Lamaque	13	5.93	2,439,000	Canada, Quebec	White Tiger Gold	
274	Jeronimo	19	3.93	2,427,000	Chile	Yamana Yamana	
275	Agi Dagi	120	0.63	2,415,000	Turkey	Alamos Gold	
276	Angostura	14	5.38	2,405,000	Colombia	Eco Oro	
277	Red Mountain	181	0.41	2,396,000	Canada, Yukon	AM Gold	
278	Gatsuurt	28	2.68	2,394,000	Mongolia	Centerra	
279	Gramalote	74	1.00	2,390,000	Colombia	B2Gold / Anglogold Ash	anti
280	Comstock Project	77	0.97	2,388,000	USA, Nevada	Comstock Mining	anu
	Sabodala	71	1.05	2,380,000	Africa, Senegal	Teranga Gold	
282	Kirkland Lake	5	16.39	2,371,000	Canada, Ontario	Kirkland Lake Gold	
	Wilco	159	0.46		USA, Nevada	Rye Patch Gold	I .
		119	6.69	2,346,000			
	Granny Smith	101		2,313,000	Australia	Barrick	I.
	Borealis Mira"ores	121	0.71 0.59	2,312,000	USA, Nevada	Gryphon Gold Sea! eld Resources	
286		18		2,302,000	Colombia		4
287	Gounkoto		3.97	2,300,000	Africa, Mali	Randgold	T.
288	St. Ives	30	2.38	2,300,000	Australia	Gold! elds	ŧ.
289	Albazino	17	4.21	2,300,000	Russia DC	Polymetal	
290	Premier Project	117	0.61	2,284,000	Canada, BC	Ascot Resources	
291	Concordia	78	0.90	2,277,000	Mexico	Vista Gold	
292	Plutonic	8.5	8.27	2,260,000	Australia	Barrick	1
293	Albyn	35	1.99	2,240,000	Russia	Petropavlovsk	
294	New Afton	99	0.70	2,229,000	Canada, BC	NewGold	
295	Ormsby	20	3.46	2,215,000	Yellowknife	Tyhee	
296	Golden Eagle	50	1.39	2,213,000	USA, Washington	Midway Gold	
297	Kanowna Belle	16	4.26	2,206,000	Australia	Barrick	t
298	Awak Mas	62	1.10	2,195,000	Indonesia	Vista Gold	
299	Quimsacocha	10	6.61	2,168,000	Equador	IAMGold	
300	Dynasty	14	4.70	2,165,000	Equador	Dynasty Mining	

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership	Producing
301	Efemcukuru	8	8.42	2,153,000	Turkey	El Dorado	
302	Fire Creek	7	8.93	2,147,000	USA, Nevada	Klondex Mines	
303	Ayanfuri	56	1.17	2,100,000	Africa, Ghana	Perseus Mining	
304	Sekisovskoye	29	2.27	2,090,730	Kazakhzstan	Hambledon Mining	1
305		41	1.58	2,080,000	Africa, Ghana	lAMGold	1
306	Taldybulak	9	7.23	2,077,000	Kyrgyz Republic	Zijin Mining / Kyrgyz G	overnment
307	Maclellan Deposit	34	1.87	2,058,700	Canada, Manitoba	Carlisle Gold! elds	
308	Fenn Gibb	65	0.98	2,050,000	Canada, Ontario	Lake Shore Gold	
309	GJ	176	0.36	2,050,000	Canada, BC	NGEX	
310	Salave	22	2.90	2,021,000	Spain	Astur Gold	
311	Namoya	34	1.83	2,020,000	Africa, DRC	Banro	
312	Masbate	37	1.68	2,000,000	Philippines	CGA Mining	
313	Tepal	223	0.28	1,986,000	Mexico	Geologix Explorations	
314		11	5.82	1,983,000	Canada, Ontario	St. Andrew Gold! elds	
315	Minera Florida	17	3.61	1,960,000	Chile	Yamana	1
316	Perama Hill	21	2.84	1,936,000	Greece	El Dorado	•
317	Cerro Blanco	4	15.52	1,931,000	Peru	Goldcorp	
318	Hemlo	22	2.72	1,923,000	Canada, Ontario	Barrick	ŧ
319		14	4.11	1,915,000	Brazil	Kinross	•
320		7	8.44	1,900,000	Russia	Highland Gold	t
321	Novoshirokinksoye	8	7.39	1,900,000	Russia	Highland Gold	<b>.</b>
	Massawa	13	4.55	1,900,000	Singapore	Randgold	,
	Fresnillo	84	0.71	1,900,000	Mexico	Fresnillo	1
324		8	7.34	1,900,000	Africa, DRC	Anglogold Ashanti	
		37	1.61	1,900,000	French Guiana	Columbus Gold	
326		44	1.34	1,885,000	Canada, Quebec	Aurvista	
327	Bjorkdal	33	1.76	1,874,000	Sweden	Gold Ore Resources	*
328	Timmins West Mine	10	5.82	1,870,000	Canada, Ontario	Lake Shore Gold	*
329		36	1.63	1,870,000	Africa, Congo	Kilo Gold Mines	į.
	La India Deposit	80	0.72	1,870,000	Mexico	Agnico Eagle	
331	Otjikoto	41	1.39	1,820,000	Africa, Namibia	B2gold	
332		43	1.29	1,800,000	Romania	Gabriel Resources	
	Tonkin	41	1.36	1,784,000	USA, Nevada	Mcewen Mining	
	Long Valley	92	0.60	1,783,000	USA, California	Vista Gold	
	Fosterville	19	2.89	1,765,000	Australia	Aurico	
336		37	1.46	1,745,000	Canada, Quebec	Inmet	
337		49	1.09	1,735,000	USA, Alaska	Freegold Ventures	
338		26	2.03	1,700,000	Mexico	Fresnillo	4
339	-	70	0.75	1,700,000	Russia	Petropavlovsk	t.
	Voro	19	2.78	1,700,000	Russia	Polymetal	t
	Nucleus	90	0.59	1,700,000	Canada, Yukon	Northern Freegold	
	White Mountain	13	4.17	1,689,000	China	El Dorado	
343		35	1.51	1,675,000	Africa, Ghana	Azumah Resources	t
344		54	0.96	1,668,000	Mexico	Argonaut Gold	
		14	3.58		Mexico	Yamana	
346		39	3.56 1.31	1,659,000 1,640,000	USA, Nevada	International Minerals	
347	Garreon	54	0.94	1,639,000		Northern Gold	
					Canada, Ontario		
348	Goliath Gold	25	2.02	1,630,000	Canada, Ontario	Treasury Metals	×
349	Bisha Mine	28	1.78	1,620,000	East Africa	Nevsun Resources	ŧ
JOU	White Gold	19	2.58	1,583,000	Canada, Yukon	Kinross	

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership	Producing
351	Cevizlidere	446	0.11	1,576,000	Turkey	Alacer Gold	
	Lalor	13	3.85	1,560,000	Canada, Manitoba	Hudbay Minerals	
353		18	2.76	1,553,000	Canada, Quebec	Agnico Eagle	
354		30	1.61	1,552,500	Russia	High River Gold	
355	Inmaculda	12	4.02	1,550,000	Peru	International Minerals	
356	La Coipa	37	1.31	1,546,000	Chile	Kinross	t
357	RDM Mine	29	1.64	1,523,000	Brazil	Carpathian Gold	•
358	Minera Saucito	24	1.96	1,520,000	Mexico	Fresnillo	ŧ
359	Turmalina	11	4.16	1,513,000	Brazil	Jaguar Mining	t
360	Liberty Gold	13	3.73	1,513,000	Africa, Liberia	Aureus Mining	
361	Main Project	11	4.23	1,511,000	Krygz Republic	Chaarat Gold Holdings	
362		51	0.92	1,510,000	Canada, Ontario	Moss Lake Gold	
363	Three Bluffs	9	5.31	1,507,000	Canada, Nunavut	North Country Gold	
364	Bambanani	5	9,33	1,500,000	Africa, South Africa	Harmony Gold	t e
365	Idaho-Maryland Deposit	4	11.88	1,490,000	USA, California	Emgold Mining Corporat	ion
366	Granada Gold Deposit	43	1.09	1,486,700	Canada, Quebec	Gold Bullion Developmer	
367	·	38	1.23	1,481,000	Costa Rica	In! nito Gold	
368	Golden Summit	82	0.56	1,478,000	USA, Alaska	Freegold Ventures	
369	Valle Hondo	51	0.89	1,451,000	Venezuela	Rusoro	
370	Bell Creek Complex	10	4.40	1,443,900	Canada, Ontario	Lake Shore Gold	t
371	Kencana	3	17.17	1,435,000	Indonesia	Newcrest	
	Tokur	39	1.15	1,430,000	Russia	Petropavlovsk	
373	Uzboy Project	33	1.36	1,424,000	Kazakhzstan	Alhambra Resources	
374		59	0.75	1,416,000	Saskatchewan	St Eugene/ Claude Resou	rces
375	Tabakoto	10	4.58	1,409,000	Africa	Avion Gold	
376	Modder East	8	5.44	1,400,000	Africa, South Africa	Gold One International	
377	Runruno	26	1.68	1,390,000	Philippines	Metals Exploration	
378	Mara Rosa	24	1.69	1,330,000	Brazil	Amarillo Gold	
379	Dvoinoye	2	17.82	1,318,000	Russia	Kinross	
380	Cui Cui	34	1.18	1,300,000	Brazil	Magellan Minerals	
381	Varvarinskoye	36	1.12	1,300,000	Russia	Polymetal	
382	San Jorge	190	0.21	1,300,000	Argentina	Coro Mining	
383		7	6.10	1,299,000	Canada, Quebec	Claude Resources	1
	Jerusalem	3	11.88	1,295,000	Equador	Dynasty Mining	
	San Jose Mine	6	6.47	1,290,000	Argentina	Mcewen Mining/ Hochsc	hild
386	El Chanate	62	0.65	1,285,000	Mexico	Aurico	+
387	San Dimas Mine	9	4.58	1,281,000	Mexico	Primero Mining	t
388	Pickle Crow	10	3.86	1,260,000	Canada, Ontario	PC Gold	ŧ.
389	Copper Canyon	54	0.73	1,260,000	Canada, BC	Novagold/Teck	
390	Don Sixto	30	1.32	1,259,000	Argentina	Extorre Gold	
391	Gold! elds 2	25	1.53	1,251,000	Canada, Saskatchewan	Brigus Gold	
392	Higginsville	11	3.50	1,250,000	Australia	Alacer Gold	•
	Marlin	8	4.76	1,248,000	Guatemala	Goldcorp	
394	San Nicolas	80	0.48	1,238,000	Mexico	Teck/ Goldcorp	
395	Agbaou	16	2.32	1,228,000	Africa, Ivory Coast	Endeavour Mining	
396	Madsen	4	9.47	1,225,000	Canada, Ontario	Claude Resources	
397	Ernesto/ Pau a Pique	15	2.49	1,223,000	Brazil	Yamana	
398	Comtois	8	4.64	1,212,000	Canada, Quebec	Maudore Resources	
399	Noche Buena	89	0.42	1,207,000	Mexico	Fresnillo/Newmont	
400	Big Springs	14	2.60	1,200,000	USA, Nevada	Victoria Gold	

D	eposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership	Producing
401 H	asbrouck	129	0.29	1,200,000	USA, Nevada	Allied Nevada Gold	
402 <b>M</b>	1arsden	220	0.17	1,200,000	Australia	Newcrest	
403 Pe	eak Mines	10	3.72	1,197,000	Australia	NewGold	1
404 <b>C</b> i	olumbia	25	1.50	1,196,000	USA, Montana	Atna	
405 La	a Colorada	55	0.67	1,187,000	Mexico	Argonaut Gold	
406 Re	eefton	17	2.20	1,180,000	New Zealand	OceanaGold	t
407 Ta	anjianshan	12	2.96	1,171,000	China	El Dorado	t
	amego	6	6.07	1,170,000	Brazil	Anglogold Ashanti	t
	erro Jumil	43	0.84	1,168,000	Mexico	Esperanza Resources	•
410 G	old River Trend	6	5.97	1,144,000	Canada, Ontario	Lake Shore Gold	
411 <b>K</b> a	alana Gold Mine	6	6.35	1,143,000	Africa, Mali	Avnel Gold Mining	1
412 E	Cubo	17	2.11	1,139,000	Mexico	Aurico	1
413 Br	riggs	53	0.67	1,137,520	USA, California	Atna	ŧ
	aciencia	9	3.84	1,133,000	Brazil	Jaguar Mining	<b>1</b>
415 <b>C</b> a	ampamento	24	1.44	1,128,000	Dominican Republic	Brigus Gold	
416 Be	erezitovy	14	2.52	1,126,620	Russia	High River Gold	*
417 Br	rewery Creek	53	0.66	1,121,000	Canada, Yukon	Golden Predator	
418 <b>A</b>	quarius	23	1.51	1,120,000	Canada, Ontario	St. Andrew Gold! elds	
419 BI	lack Fox	7	5.18	1,115,000	Canada, Ontario	Brigus Gold	rije.
420 C	erro Moro	7	4.80	1,106,000	Argentina	Extorre Gold	
421 <b>M</b>	1asimong	6	5.70	1,100,000	Africa, South Africa	Harmony Gold	1
422 <b>R</b> e	evenue	101	0.34	1,100,000	Canada, Yukon	Northern Freegold	
423 C	oringa	7	5.12	1,095,000	Brazil	Magellan Minerals	
424 C	armen	33	1.01	1,080,000	Brazil	Kimber Resources	
425 Pa	an Project	66	0.51	1,079,000	USA, Nevada	Midway Gold	
426 Pe	etropavlovskoye	33	1.00	1,070,000	Russia	Petropavlovsk	
427 La	a Mina	49	0.68	1,064,722	Colombia	Bellhaven Copper & Gol-	d
428 <b>Ta</b>	aurus	33	0.99	1,055,000	Canada, BC	China Minerals	
429 <b>W</b>	/alhi	6	5.80	1,044,200	New Zealand	Newmont	4
430 Ba	ack Forty	21	1.52	1,042,000	USA, Michigan	Aquila Resources/Hudba	y Minerals
431 Fa	azenda Brasileiro	12	2.73	1,036,000	Brazil	Yamana	t
432 <b>E</b> a	astern Dragon	6	5.63	1,032,000	China	El Dorado	
433 Ju	ındee	5	6.46	1,017,000	Australia	Newmont	t
434 M	laud Creek	10	3.08	1,017,000	Australia	Crocodile Gold	
435 <b>Ri</b>	io Blanco	6	5.44	1,015,000	Equador	International Minerals	
436 <b>M</b>	1agambazi	22	1.44	1,013,700	Africa, Tanzania	Canaco Resources	
437 In	victa	25	1.26	1,013,000	Peru	Andean American	
438 <b>C</b> l	hangkeng	8	3.94	1,009,000	China	Minco Gold	
439 <b>M</b>	1ount Rawdon	37	0.84	1,000,000	Australia	Newcrest	

## Undeveloped Deposits over 1mm oz owned by Independent Juniors

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership
1	Pebble Deposit	10,177	0.33	107,300,000	USA, Alaska	Northern Dynasty / Anglo American
2	KSM Deposit	3,906	0.51	63,979,000	Canada, BC	Seabridge Gold
3	Snow! eld	2,203	0.49	34,950,000	Canada, BC	Pretium Resources
4	Sukhoi Log	384	2.67	33,000,000	Russia	Government of Russia
5	Las Cristinas	1,116	0.86	30,804,000	Venezuela	Government of Venezuela
6	Detour Lake Mine	887	1.02	29,119,000	Canada, Ontario	Detour Gold
7	Caspiche	1,646	0.47	24,869,000	Chile	Exeter Gold
8	Livengood	1,190	0.54	20,631,000	USA, Alaska	Int'l Tower Hill Mines
9	Metates	1,246	0.49	19,828,000	Mexico	Chesapeake
10	Rosia Montana	556	1.03	18,500,000	Romania	Gabriel Resources
11	BruceJack	30	17.45	17,056,000	Canada, BC	Pretium Resources
12	Marmato	489	0.91	14,377,000	Colombia	Gran Colombia
13	King King	1,151	0.32	11,943,000	Philippines	St. Augustine Gold
14	Courageous Lake	156	2.27	11,403,000	Canada, BC	Seabridge Gold
15	Titiribi	635	0.54	11,079,000	Colombia	Sunward
16	Galore Creek	1,160	0.29	10,700,000	Canada, BC	Novagold/Teck
17	Volcan	456	0.71	10,383,000	Chile	Andina Minerals
18	Toroparu	419	0.74	10,006,000	Guyana	Sandspring Resources
19	Gaby	499	0.62	10,000,000	Equador	International Minerals/Chinese Firm
20	Mt. Todd	341	0.83	9,036,000	Australia	Vista Gold
21	Tengrela	271	1.04	9,024,000	Africa, Ivory Coast	Perseus Mining
22	Casino Copper	1,058	0.24	8,300,000	Canada, BC	Western Copper
23	Prosperity Mine	831	0.29	7,700,000	Canada, BC	Taseko Mines
24	Maoling	317	0.76	7,700,000	China	Mundoro Capital
25	Mount Milligan	727	0.32	7,468,000	Canada, BC	Thompson Creek Metals
26	Rovina Valley	370	0.59	6,960,000	Romania	Carpathian Gold
27	Rainy River	194	1.08	6,736,000	Canada, Ontario	Rainy River Resources
28	La Bodega	139	1.50	6,700,000	Colombia	AUX
29	Aurora	57	3.60	6,600,000	Guyana	Guyana Gold! elds
30	Dublin - Eagle Gold	300	0.66	6,355,000	Canada, Yukon	Victoria Gold
31	Panimba	71	2.77	6,286,000	Russia	Polyus Gold
32	Spanish Mountain	477	0.40	6,210,000	Canada, BC	Spanish Mountain Gold
33	Batero Quinchia	490	0.39	6,087,000	Colombia	Batero
34	La Arena	743	0.25	6,048,000	Peru	Ria Alto
35	Back River	32	5.81	6,046,000	Canada, Nunavut	Sabina Gold & Silver
36	Golden Meadows	95	1.91	5,820,000	USA, Idaho	Midas Gold
37	Borden Lake	268	0.67	5,780,000	Canada, Ontario	Probe Mines
38	Converse Deposit	351	0.51	5,700,000	USA, Nevada	International Minerals
39	Esaase	145	1.12	5,190,000	Africa, Ghana	Keegan Resources
40	Kiaka	147	1.06	5,029,000	Africa, Burkina Faso	Volta Resources
41	Haile Deposit	91	1.65	4,840,000	USA, North Carolina	Romarco Minerals
42	Volta Grande	88	1.70	4,818,000	Brazil	Belo Sun
43	Obotan	60	2.35	4,510,000	Africa, Ghana	PMI Gold
44	Sleeper	303	0,46	4,458,000	USA, Nevada	Paramount Gold
45	Josemaria	460	0.30	4,436,700	Argentina	NGEX
46	Sinchao	416	0.33	4,414,000	Peru	Andean American
47	Xietongmen	219	0.61	4,310,000	Tibet	Continental Minerals
48	Sawayaerdun	110	1.18	4,190,000	China	GobiMin
49	Spring Valley	249	0.52	4,131,000	USA, Nevada	Midway Gold
50	Mount Margaret	523	0.24	4,036,000	USA, Washington	Ascot Resources

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership
51	Magino Gold	122	1.00	3,897,000	Canada, Ontario	Prodigy Gold
52	Ventersburg	34	3.57	3,890,000	South Africa	Gold One International
53	Morelos	37	3.20	3,858,000	Mexico	Torex Gold
54	Dachang	39	3.08	3,810,000	China	Inter-Citic
55	Springpole	90	1.27	3,670,000	Canada, Ontario	Gold Canyon Resources
56	Amulsar	144	0.79	3,666,000	Armenia	Lydian International
57	Hardrock	28	4.07	3,600,000	Canada, Ontario	Premier Gold Mines
58	Pinson	30	3.69	3,573,500	USA, Nevada	Atna / Barrick
59	Bombore	122	0.89	3,462,000	Africa, Burkina Faso	Orezone
60	Shahuindo	182	0.58	3,407,000	Peru	Sulliden
61	Robertson	178	0.59	3,381,000	USA, Nevada	Coral Gold
62	Duparquet	61	1.72	3,353,000	Canada, Quebec	Clifton Star Resources
63	Joanna Gold	78	1.33	3,339,000	Canada, Quebec	Aurizon Mines
64	Buritica	8	12.30	3,164,000	Colombia	Continental Gold
65	Golden Highway	81	1.20	3,140,000		Moneta Porcupine
66	Passendro	53	1.83	3,131,000	Central African Republic	
67	Whistler Deposit	225	0.43	3,130,000	USA, Alaska	Kiska Metals
68	Amantaytau	23	4.19	3,100,000	Uzbekistan	Oxus Gold
69	Lindero	182	0.51	2,950,000	Argentina	Mans! eld Minerals
70	Bronson Slope	187	0.48	2,858,000	Canada, BC	SnipGold
71	F2 Deposit	5	16.55	2,794,000	Canada, Ontario	Rubicon Minerals
72	Contact Project	20	4.33	2,784,000	Krygz Republic	Chaarat Gold Holdings
73	Harmony Gold	64	1.35	2,770,000	Canada, BC	Taseko Mines
74	Quartz Mountain	103	0.83	2,744,000	USA, Oregon	Seabridge Gold
75	Karma	91	0.93	2,731,000	Africa, Burkina Faso	Riverstone Resources
76	Ajax	500	0.17	2,700,000	Canada, BC	Abacus Mining
77	Tyrone	7	12.75	2,690,000	Ireland	Dalradian Resources
78	Increible	41	2.04	2,690,000	Venezuela	Rusoro
79	Wasamac	32	2.58	2,685,000	Canada, Quebec	Richmont Mines
80	Soledad Mountain	123	0.68	2,673,000	USA, California	Golden Queen
81	El Valle-Boina	17	4.86	2,612,000	Spain	Orvana
82	Kwanika	537	0.15	2,585,000	Canada, BC	Serengeti Resources
83	Burnside Project	30	2.69	2,567,000	Australia	Crocodile Gold
84	Randalls Gold Deposit	30	2.59	2,500,000	Australia	Integra Mining
85	Visokoe	68	1.14	2,490,000	Russia	Petropavlovsk
86	Angostura	14	5.38	2,405,000	Colombia	Eco Oro
87	Red Mountain	181	0.41	2,396,000	Canada, Yukon	AM Gold
88	Gramalote	74	1.00	2,390,000	Colombia	B2Gold / Anglogold Ashanti
89	Comstock Project	77	0.97	2,388,000	USA, Nevada	Comstock Mining
90	Wilco	159	0.46	2,346,000	USA, Nevada	Rye Patch Gold
91	Borealis	101	0.71	2,312,000	USA, Nevada	Gryphon Gold
92	Mira"ores	121	0.59	2,302,000	Colombia	Sea! eld Resources
93	Albazino	17	4.21	2,300,000	Russia	Polymetal
94	Premier Project	117	0.61	2,284,000	Canada, BC	Ascot Resources
95	Concordia	78	0.90	2,277,000	Mexico	Vista Gold
96	Ormsby	20	3.46	2,215,000	Yellowknife	Tyhee
97	Golden Eagle	50	1.39	2,213,000	USA, Washington	Midway Gold
98	Awak Mas	62	1.10	2,195,000	Indonesia	Vista Gold
99	Fire Creek	7	8.93	2,147,000	USA, Nevada	Klondex Mines
100	Ayanfuri	56	1.17	2,100,000	Africa, Ghana	Perseus Mining

	Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership
101	Maclellan Deposit	34	1.87	2,058,700	Canada, Manitoba	Carlisle Gold! elds
102	GJ	176	0.36	2,050,000	Canada, BC	NGEX
103	Salave	22	2.90	2,021,000	Spain	Astur Gold
104	Masbate	37	1.68	2,000,000	Philippines	CGA Mining
105	Tepal	223	0.28	1,986,000	Mexico	Geologix Explorations
106	Paul Isnard	37	1.61	1,900,000	French Guiana	Columbus Gold
107	Douay	44	1.34	1,885,000	Canada, Quebec	Aurvista
108	Somituri	36	1.63	1,870,000	Africa, Congo	Kilo Gold Mines
109	Otjikoto	41	1.39	1,820,000	Africa, Namibia	B2gold
110	•	43	1.29	1,800,000	Romania	Gabriel Resources
111	Tonkin	41	1.36	1,784,000	USA, Nevada	Mcewen Mining
112	Long Valley	92	0.60	1,783,000	USA, California	Vista Gold
113	Troilus	37	1.46	1,745,000	Canada, Quebec	Inmet
114	Vinasale Project	49	1.09	1,735,000	USA, Alaska	Freegold Ventures
115	Nucleus	90	0.59	1,700,000	Canada, Yukon	Northern Freegold
116	Voro	19	2.78	1,700,000	Russia	Polymetal
117	Wa Gold Project	35	1.51	1,675,000	Africa, Ghana	Azumah Resources
118	Gold! eld Deposit	39	1.31	1,640,000	USA, Nevada	International Minerals
119	Garroon	54	0.94	1,639,000	Canada, Ontario	Northern Gold
120	Goliath Gold	25	2.02	1,630,000	Canada, Ontario	Treasury Metals
121	Inmaculda	12	4.02	1,550,000	Peru	International Minerals
122	RDM Mine	29	1.64	1,523,000	Brazil	Carpathian Gold
123	Liberty Gold	13	3.73	1,513,000	Africa, Liberia	Aureus Mining
124	Main Project	11	4.23	1,511,000	Krygz Republic	Chaarat Gold Holdings
125	Moss Lake	51	0.92	1,510,000	Canada, Ontario	Moss Lake Gold
126	Three Bluffs	9	5.31	1,507,000	Canada, Nunavut	North Country Gold
127	Idaho-Maryland Deposit	4	11.88	1,490,000	USA, California	Emgold Mining Corporation
128	Granada Gold Deposit	43	1.09	1,486,700	Canada, Quebec	Gold Bullion Development
129	Crucitas	38	1.23	1,481,000	Costa Rica	In! nito Gold
130	Golden Summit	82	0.56	1,478,000	USA, Alaska	Freegold Ventures
131	Valle Hondo	51	0.89	1,451,000	Venezuela	Rusoro
132	Tokur	39	1.15	1,430,000	Russia	Petropavlovsk
133	Uzboy Project	33	1.36	1,424,000	Kazakhzstan	Alhambra Resources
134	Amisk	59	0.75	1,416,000	Saskatchewan	St Eugene/ Claude Resources
	Tabakoto	10	4.58	1,409,000	Africa	Avion Gold
136	Modder East	8	5.44	1,400,000	Africa, South Africa	Gold One International
137	Runruno	26	1.68	1,390,000	Philippines	Metals Exploration
138	Mara Rosa	24	1.69	1,330,000	Brazil	Amarillo Gold
139	San Jorge	190	0.21	1,300,000	Argentina	Coro Mining
140	Cui Cui	34	1.18	1,300,000	Brazil	Magellan Minerals
141	Varvarinskoye	36	1.12	1,300,000	Russia	Polymetal
142	San Jose Mine	6	6.47	1,290,000	Argentina	Mcewen Mining/ Hochschild
143	Copper Canyon	54	0.73	1,260,000	Canada, BC	Novagold/Teck
144	Pickle Crow	10	3,86	1,260,000	Canada, Ontario	PC Gold
145	Don Sixto	30	1.32	1,259,000	Argentina	Extorre Gold
146	Agbaou	16	2.32	1,228,000	Africa, Ivory Coast	Endeavour Mining
147	Comtois	8	4.64	1,212,000	Canada, Quebec	Maudore Resources
148	Big Springs	14	2.60	1,200,000	USA, Nevada	Victoria Gold
149	Cerro Jumil	43	0.84	1,168,000	Mexico	Esperanza Resources
150	Brewery Creek	53	0.66	1,121,000	Canada, Yukon	Golden Predator

Undeveloped Deposits over 1mm oz owned by Independent Juniors (151–164)

Deposit Name	Tonnes (mt)	Grade	Contained Oz	Location	Ownership Producing
1 Aquarius	23	1.51	1,120,000	Canada, Ontario	St. Andrew Gold! elds
2 Cerro Moro	7	4.80	1,106,000	Argentina	Extorre Gold
3 Revenue	101	0.34	1,100,000	Canada, Yukon	Northern Freegold
4 Coringa	7	5.12	1,095,000	Brazil	Magellan Minerals
5 Pan Project	66	0.51	1,079,000	USA, Nevada	Midway Gold
6 Petropavlovskoye	33	1.00	1,070,000	Russia	Petropavlovsk
7 La Mina	49	0.68	1,064,722	Colombia	Bellhaven Copper & Gold
8 Taurus	33	0.99	1,055,000	Canada, BC	China Minerals
9 Back Forty	21	1.52	1,042,000	USA, Michigan	Aquila Resources/Hudbay Minerals
0 Maud Creek	10	3.08	1,017,000	Australia	Crocodile Gold
1 Rio Blanco	6	5.44	1,015,000	Equador	International Minerals
2 Magambazi	22	1.44	1,013,700	Africa, Tanzania	Canaco Resources
3 Invicta	25	1.26	1,013,000	Peru	Andean American
4 Changkeng	8	3.94	1,009,000	China	Minco Gold



### About Natural Resource Holdings (NRH)

Natural Resource Holdings (ADR: NRHYY) is focused on the acquisition, development, and ownership of natural resource assets. The company's investments consist of real interests in drill-de!ned deposits that have signi!cant exploration potential and can be advanced towards production. Since 2008, NRH has acquired 6 deposits in North America hosting a combined 1,590,000 ounces of gold (compliant and historical resources), 60 million ounces of Silver equivalents (34.5 million Silver and 430,000 tonnes of Zinc/Lead, historical resources), and 280 million tonnes of iron ore (compliant resource). Mineralization in all six deposits is shallow (averaging less than 150 metres) as they were de!ned nearly 20 years ago, leaving signi!cant opportunity for development.

Learn more at: http://www.nrh.co.il



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